Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently Amended) <u>An</u> A upgradeable and extendable wireless communication system, comprising:

a plurality of layers, each layer including:

a plurality of configurable computational units capable of implementing operation of wireless digital communication functions<u>, at least one of the plurality of configurable computational units being dynamically selected based on a wireless communication standard to configure various hardware for dedicated functions</u>;

a plurality of data flow components for forming paths between ones of said computational units and having means for storing data<u>, at least a first one of the plurality of data flow components interconnecting each of the computation units and at least a second one of the plurality of data flow components interconnecting each of the plurality of layers</u>; and

a plurality of control flow components for forming a signaling-exchange network between ones of said computational units.

2. (Original) The wireless communication system of claim 1 further including means for at least one layer of said plurality of layers to communicate with at least another layer of sad plurality of layers.

3. (Original) The wireless communication system of claim 1, wherein the plurality of configurable computational units comprise a RF front-end waveform kernel set, a re-configurable kernel set and a reprogrammable kernel set.

4. (Original) The wireless communication system of claim 1, wherein the plurality of data flow components comprise a layer-router structure.

5. (Original) The wireless communication system of claim 1, wherein the plurality of control flow components comprise a layer-memory structure and a layer-bus structure.

6. (Currently Amended) A method of programming and configuring components of an upgradeable and extendable wireless communication system in order to implement multiple wireless communication standards, services, and applications, comprising:

identifying one of the application, standard or service to be implemented;

compiling software stored in a software library that is associated with the identified application, standard or service and storing complied software in a host memory;

determining the utilization of hardware resources based on the complied software, the hardware resources being located at different layers of an updateable and extendable communication system and being chosen to form an event-driven hardware; and

configuring hardware resources to meet the application, standard or service required.